## WHAT IS CLAIMED is:

An image forming apparatus comprising:
 an operating unit for accepting an operation mode

set command from a user;

a scanner unit for reading an original document image optically and converting it into image data;

an image determination section for determining the optimum operation mode for the image data read by the scanner unit;

a display unit for, when the operation mode determined by the image determination section and the operation mode specified by the user differ from each other, showing the operation mode determined by the image determination section;

a control unit for setting the operation mode determined by the image determination section when a command is given to change the operation mode to the operation mode shown on the display unit or setting the operation mode specified by the user through the operating unit when no command is given to change the operation mode to the operation mode shown on the display unit;

an image forming unit for performing image formation processing on the original document image read by the scanner unit on the basis of the operation mode set by the control unit.

2. The image forming apparatus according to

10

5

15

20

5

10

15

20

25

claim 1, wherein the scanner unit is a color scanner and the image forming unit is a color printer.

- 3. The image forming apparatus according to claim 1, wherein the image determination unit determines the optimum settings for image formation of the original document image by the image forming unit on the basis of changes in density of the original document image read by the scanner unit.
- 4. The image forming apparatus according to claim 1, wherein the image determination unit determines the optimum settings for image formation of the original document image by the image forming unit on the basis of the amount of data from the original document image read by the scanner unit.
- 5. The image forming apparatus according to claim 1, wherein the image determination unit determines the optimum settings for image formation of the original document image by the image forming unit by determining whether or not the document image is a high-definition image on the basis of changes in density of the original document image read by the scanner unit.
- 6. An image forming apparatus comprising: an operating unit for accepting an operation mode set command and a copy operation start command from a user;
  - a scanner unit for reading an original document

5

10

15

20

25

image optically and converting it into image data;

a determination section for, when the copy operation start command is given through the operating unit, determining whether the document image read by the scanner unit is not suitable for compression and decompression;

a display unit for, when the determination section determines that the document image is not suitable for compression and decompression, showing a guide to the effect that compression and decompression processing should not be performed on the document image if the operation mode set by the user involves compression and decompression;

a control unit for setting an operation mode with no compression and decompression processing when it is told through the operating unit not to perform compression and decompression in accordance with the guide shown on the display unit and setting an operation mode with no compression and decompression processing when an operation mode with no compression and decompression processing is not told through the operating unit;

an image forming unit for forming the original document image read by the scanner unit on an image formed medium on the basis of the operation mode set by the control unit.

7. The image forming apparatus according to

claim 6, wherein the scanner unit is a color scanner and the image forming unit is a color printer.

- 8. The image forming apparatus according to claim 6, wherein the image determination unit determines whether to compress and decompress the original document image or not on the basis of changes in density of the original document image read by the scanner unit.
- 9. The image forming apparatus according to claim 6, wherein the image determination unit determines whether to compress and decompress the document image or not on the basis of the amount of data from the original document image read by the scanner unit.
- 10. The image forming apparatus according to claim 6, wherein the image determination unit determines whether or not the document image is a high-definition image on the basis of changes in density of the original document image read by the scanner unit and, if the document image is a high-definition image, determines that compression and decompression processing should not be performed on the document image.
- 11. An image forming method used in an image forming apparatus including an operating unit for accepting an operation mode set command from a user, a scanner unit for reading an original document image

15

5

10

20

optically and converting it into image data, and an image forming unit for forming the original document image read by the scanner unit on an image formed medium on the set operation mode, comprising:

determining the optimum operation mode for the image data read by the scanner unit;

when the determined operation mode differs from the operation mode specified by the user, showing the operation mode determined by the image determination section to the user;

setting the shown operation mode when a command is given to change the operation mode to the shown operation mode or setting an operation mode specified in advance by the user when no command is given to change the operation mode to the shown operation mode;

performing an operation of copying the original document image in the set operation mode.

- 12. The image forming method according to claim 11, wherein the scanner unit is a color scanner and the image forming unit is a color printer.
- 13. The image forming method according to claim 11, wherein determining the optimum operation mode is to determine the optimum settings for image formation of the original document image by the image forming unit on the basis of changes in density of the original document image read by the scanner unit.
  - 14. The image forming method according to

15

10

5

25

claim 11, wherein determining the optimum operation mode is to determine the optimum settings for image formation of the original document image by the image forming unit on the basis of the amount of data from the original document image read by the scanner unit.

15. The image forming method according to claim 11, wherein determining the optimum operation mode is to determine the optimum settings for image formation of the original document image by the image forming unit by determining whether or not the document image is a high-definition image on the basis of changes in density of the original document image read by the scanner unit.

16. An image forming method used in an image forming apparatus including an operating unit for accepting an operation mode set command and a copy operation start command from a user, a scanner unit for reading an original document image optically and converting it into image data, and an image forming unit for forming the original document image read by the scanner unit on an image formed medium in a set operation mode, comprising:

when the copy operation start command is given through the operating unit, reading the document image through the scanner unit and determining whether or not the document image is unsuitable for compression and decompression;

10

5

15

25

when the determination is that the document image is unsuitable for compression and decompression, showing a guide to the effect that compression and decompression processing should not be performed on the document image if an operation mode set by the user involves compression and decompression;

setting an operation mode with no compression and decompression processing when it is told through the operating unit not to perform compression and decompression in accordance with the guide shown and setting an operation mode with no compression and decompression processing when an operation mode with no compression and decompression processing is not told through the operating unit; and

performing an operation of copying the original document image in the set operation mode.

- 17. The image forming method according to claim 16, wherein the scanner unit is a color scanner and the image forming unit is a color printer.
- 18. The image forming method according to claim 16, wherein determining whether or not the document image is unsuitable for compression and decompression is to determine the original document image is unsuitable for compression and decompression on the basis of changes in density of the original document image read by the scanner unit.
  - 19. The image forming method according to

10

5

15

20

claim 16, wherein determining whether or not the document image is unsuitable for compression and decompression is to determine the original document image is unsuitable for compression and decompression on the basis of the amount of data from the original document image read by the scanner unit.

20. The image forming method according to claim 16, wherein determining whether or not the document image is unsuitable for compression and decompression is to determine whether or not the document image is a high-definition image on the basis of changes in density of the original document image read by the scanner unit and, if the document image is a high-definition image, determine that the original document image is unsuitable for compression and decompression.